

In the Claims:

15. (Currently Amended) A method for cutting metal comprising:

providing high pressure oxygen gas to a cutting torch from a liquid oxygen source;

providing a combustible gas to said cutting torch, wherein said combustible gas is selected from a group consisting of: propane, chemtane, propylene, MAPP, and natural gas;

delivering said combustible gas to said torch at a pressure between 15 and 80 psi;

positioning the cutting torch so that it forms an angle of incidence with the surface to be cut;

preheating a metal to a molten state;

increasing the flow of the oxygen gas so that a cut is formed or expanded;

moving the cutting torch in the direction of the cut; and

cutting at least a portion of the metal exposed to the cutting torch; and

controlling the angle of incidence of the cutting torch and a flow of oxygen gas to remove molten metal from a cutting trench at an angle of reflection away from the cutting torch.

16. (Original) A method for cutting metal according to claim 15, further including the step of ensuring that the liquid oxygen does not freeze a hose.

17. (Original) A method for cutting metal according to claim 15, wherein the angle of incidence is less than 45 degrees.

18. (Currently Amended) A method for cutting metal according to claim 15, wherein the step of cutting at least a portion of the metal includes moving the cutting torch is at a rate of at least 2 feet per minute.

19. (Currently Amended) A method for cutting metal according to claim 15, wherein the step of cutting at least a portion of the metal includes moving the cutting torch is at a rate of at

least 4 feet per minute.

20. (Currently Amended) A method for cutting metal according to claim 15, wherein the step of cutting at least a portion of the metal includes moving the cutting torch is at a rate of at least 5 feet per minute.

21. (Currently Amended) A method for cutting metal according to claim 15, wherein the step of cutting at least a portion of the metal includes moving the cutting torch is at a rate of at least 7 feet per minute.

22. (Original) A method for cutting metal according to claim 15, wherein the method also comprises the step of limiting the oxygen flow pressure to between 150 psi and 220 psi.

23. (Original) A method of cutting metal comprising:
providing a two part tip cutting torch;
positioning the cutting torch to cut metal;
preheating the metal;
fueling the torch with a combustible gas and oxygen from a liquid oxygen source; and
forming a cut in the metal.

24. (Cancel) A method of cutting metal according to claim 23, further comprises the step of preheating a length of metal the length of the flame.

25. (Currently Amended) A method of cutting metal according to claim ~~24~~ 23, further comprises the step of increasing oxygen flowing to the cutting torch to between 150 and 220 psi.

26. (Original) A method of cutting metal according to claim 25, further comprises the step of ensuring the liquid oxygen does not freeze a line.

27. (Currently Amended) A metal cutting apparatus comprising:

combustible gas selected from a group consisting of: propane, chemtane, propylene, MAPP, and natural gas;

a two part tip cutting torch;

a regulator;

hoses;

heater; and

liquid oxygen, wherein the liquid oxygen is passed through a heater so that the cutting torch uses oxygen gas of at least 150 to 220 psi and the hoses do not freeze.

28. (Currently Amended) A method for cutting metal comprising:

positioning a two part tip cutting torch generally perpendicular to a surface;

preheating ~~an elongated~~ a local area;

providing a combustible gas, wherein said combustible gas is selected from a group consisting of: propane, chemtane, propylene, MAPP, and natural gas;

increasing employing gas pressure of oxygen to between at least 150 and 220 psi of oxygen gas;

removing molten metal at an angle of reflection; and

moving the cutting torch parallel to the line of cut.

29. (Original) A method for cutting metal according to claim 28, further comprising the step of preventing freezing of a hose.

30. (Currently Amended) A method for cutting metal according to claim 29, further comprising the step of moving the cutting part of the metal torch at a rate of at least 15 inches per minute.

31. (Currently Amended) A method for cutting metal according to claim 29, further comprising the step of moving the cutting torch part of the metal at a rate of at least 5 feet per minute.

32. (Cancel) A method for cutting metal according to claim 28, further comprising the step of providing propylene as the combustible gas.

33. (Cancel) A method for cutting metal according to claim 28, further comprising the step of providing propane as the combustible gas.

34. (Original) A method for cutting metal according to claim 28, further comprising the step of adjusting the position of the torch to maintain the cut.

35. (New) A method for cutting metal according to claim 23, wherein said combustible gas is delivered to said cutting torch at a rate between 15 and 80 psi.

36. (New) A method for cutting metal according to claim 28 wherein said combustible gas is delivered to said cutting torch at a rate between 15 and 80 psi.